REMARKS

Claims 1, 11, and 21, are amended herein to recite a first information storage and retrieval system comprising a plurality of logical volumes is in communication with a first host computer via a first plurality of communication links, and is in communication with a second host computer via a second plurality of communication links, and is in communication with a third host computer via a third plurality of communication links, wherein the first plurality of communication links differs from both the second plurality of communication links and the third plurality of communication links, and wherein the second plurality of communication links differs from both the first plurality of communication links and the third plurality of communication links, and wherein the third plurality of communication links differs from both the first plurality of communication links and the second plurality of communication links. Support can be found in the Specification on Page 10 at Line 4 through Page 12 at Line 4, and in FIG. 2B at elements 210 (first host computer), 220 (second host computer), 230 (third host computer), 219 first plurality of communication links), 229 (second plurality of communication links), 239 (third plurality of communication links), 250 (first information storage and retrieval system), 280 (fourth plurality of communication links).

No new matter has been entered. Reexamination and reconsideration of the application, as amended, is respectfully requested.

Claims 1-4, 11-14, and 21-24, stand rejected under 35 U.S.C. 103(a) as being unpatentable over NPL entitled "HP-UX 10.0 Logical Volume Manager White Paper" (Hewlett-Packard), in view of Padmanabhan et al. (U.S. Pub. No. 2003/0188188), and further in view of Merkey et al. (U.S. Pub. No. 2003/0041211).

Claims 5-7, 15-17, and 25-27, stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hewlett-Packard and Padmanabhan et al., and further in view of Atkin (U.S. Pat. No. 6,145, 066).

Claims 8, 18, and 28, stand rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hewlett-Packard and Padmanabhan et al., Merkey, et al., and further in view of Tremain (U.S. Pub. No. 2002/0069369).

Claims 9-10, 19-20, and 29-30, stand rejected under 35 U.S.C. 103(a) over the combination of Hewlett-Packard and Padmanabhan et al., Merkey et al., and further in view of Mokryn et al. (U.S. Pat. No. 6,735,636).

Neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al., singly or in combination, teach a first information storage and retrieval system comprising a first controller and a first plurality of logical volumes, where that first information storage and retrieval system is in communication with a first host computer via a first plurality of communication links, in communication with a second host computer via a second plurality of communication links, in communication with a third host computer via a third plurality of communication links, wherein the first plurality of communication links differs from both the second plurality of communication links and the third plurality of communication links, and wherein the second plurality of communication links differs from both the first plurality of communication links and the third plurality of communication links, and wherein the third plurality of communication links differs from both the first plurality of communication links and the second plurality of communication links, as recited by claims 1, 11, and 21, as amended herein.

-23-

Applicants respectfully submit that Merkey et al. actually teach away from claims 1, 11, and 21, as amended herein.

"A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994); *see KSR*, 127 S. Ct. at 1739-40 (explaining that when the prior art teaches away from a combination, that combination is more likely to be nonobvious). Merkey et al. in FIG. 7 shows a single communication link in communication with network interface 706 disposed in a controller 702. "A network interface 706 is provided in controller 702 through which data on RAID array 700 may be accessed by one or more clients shown as 708a, 708b, and 708c. Paragraph [0093].

One of ordinary skill in the art following the teachings of Merkey et al. would be motivated to utilize a storage system wherein a plurality of host computers communicates with a storage controller using a single communication link. On the other hand, one of ordinary skill in the art following the teachings of Merkey et al. would find no motivation to configure a first information storage and retrieval system comprising a plurality of logical volumes to be in communication with a first host computer via a first plurality of communication links, and in communication with a second host computer via a second plurality of communication links, and in communication with a third host computer via a third plurality of communication links, wherein the first plurality of communication links differs from both the second plurality of communication links and the third plurality of communication links, and wherein the second plurality of communication links differs from both the first plurality of communication links

QUARLES & BRADY LLP
One South Church Avenue
Tucson, Arizona 85701

TEL 520-770-8703
FAX 520-770-2233

-24-

and the third plurality of communication links, and wherein the third plurality of communication links differs from both the first plurality of communication links and the second plurality of communication links, as recited by claims 1, 11, and 21, as amended herein.

Neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al., singly or in combination, teach use of three host computers, wherein a first host computer is owned by a first person, and wherein a second host computer is owned by a second person, and wherein a third host computer is owned by a third person, and wherein the first person, the second person, and the third person, differ, as recited by claims 1, 11, and 21, as amended herein. Applicants respectfully submit that the Examiner incorrectly relies on Merkey et al. at Paragraph [0093] for this teaching.

Merkey et al. refers to systems that include one or more "clients." Applicants submit that a client is not synonymous with a "person." Rather, one of ordinary skill in the computer sciences art will appreciate that a "client" is a hardware and/or software device. For example, the McGraw-Hill Dictionary of Scientific and Technical Terms (2003)(Sixth Edition) at page 406 defines "client" for computer science applications as "A hardware or software entity requests shared services from a server." Declaration of Dale F. Regelman.

Merkey et al. clearly uses "client" to mean such a hardware or software entity. For example, Merkey et al. teach "FIG. 42 illustrates a software architecture that may be used to fashion a client of an RNS using the Linux operating system." Paragraph [0220] (emphasis added). "An interface layer 4204 is provided in the kernel for applications and daemons running on the client." *Id*. (emphasis added). "Daemons and processes that may run on the

QUARLES & BRADY LLP
One South Church Avenue
Tucson, Arizona 85701

TEL 520-770-8703
FAX 520-770-2233

client are a configuration and management console 4200, and an HSM data mining management console 4202." *Id.* (emphasis added).

Similarly, Merkey et al. teach "FIG. 43 illustrates a software architecture that may be used to fashion a client of an RNS using the Windows NT or Windows 2000 operating system." Paragraph [0221] (emphasis added). "An interface layer 4304 is provided in the kernel for applications and daemons running on the client." *Id.* (emphasis added). "Daemons and processes that may run on the client are a configuration and management console 4300, and an HSM data mining management console 4302." *Id.* (emphasis added).

Applicants respectfully submit that Merkey et al. utilizes the term "client" to mean a hardware or software entity, rather than a "person." This being the case, Applicants further respectfully submit that Merkey et al. nowhere teaches use of three host computers, wherein a first host computer is owned by a first person, and wherein a second host computer is owned by a second person, and wherein a third host computer is owned by a third person, and wherein the first person, the second person, and the third person, differ, as recited by claims 1, 11, and 21.

Claims 2-4, as amended herein, depend, directly or indirectly, from claim 1, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 2-4, as amended herein, are patentable over the teachings of Hewlett-Packard and/or Padmanabhan et al. and/or Merkey et al.

QUARLES & BRADY LLP
One South Church Avenue
Tucson, Arizona 85701

TEL 520-770-8703
FAX 520-770-2233

-26-

Claims 12-14, as amended herein, depend, directly or indirectly, from claim 11, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 12-14, as amended herein, are patentable over the teachings of Hewlett-Packard and/or Padmanabhan et al. and/or Merkey et al.

Claims 22-24, as amended herein, depend, directly or indirectly, from claim 21, as amended herein. Under 35 U.S.C. § 112, fourth paragraph, "a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers." "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.Cir. 1988). Applicants respectfully submit that claims 22-24, as amended herein, are patentable over the teachings of Hewlett-Packard and/or Padmanabhan et al. and/or Merkey et al.

Atkin, Tremain, or Mokryn et al., fail to cure the deficiencies of Hewlett-Packard, Padmanabhan et al., and Merkey et al. Neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al, nor Atkin, nor Tremain, nor Mokryn et al., singly or in combination, teach a first information storage and retrieval system comprising a first controller and a first plurality of logical volumes, where that first information storage and retrieval system is in communication with a first host computer via a first plurality of communication links, in communication with a second host computer via a second plurality of communication links, in communication with a third host computer via a third plurality of communication links, wherein the first plurality of

communication links differs from both the second plurality of communication links and the third plurality of communication links, and wherein the second plurality of communication links differs from both the first plurality of communication links and the third plurality of communication links, and wherein the third plurality of communication links differs from both the first plurality of communication links and the second plurality of communication links, as recited by Applicants' claims, as amended herein

In addition, neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al, nor Atkin, nor Tremain, nor Mokryn et al., singly or in combination, teach use of three host computers, wherein a first host computer is owned by a first person, and wherein a second host computer is owned by a second person, and wherein a third host computer is owned by a third person, and wherein the first person, the second person, and the third person, differ, as recited by claims 1, 11, and 21, as amended herein. Moreover, neither Hewlett-Packard, nor Padmanabhan et al., nor Merkey et al, nor Atkin, nor Tremain, nor Mokryn et al., singly or in combination, teach forming (N) host computer groups, wherein (N) is greater than 1, as recited by Applicants' claims, as amended herein.

Having dealt with all of the outstanding objections and/or rejections of the claims, Applicants submit that the application as amended is in condition for allowance, and an allowance at an early date is respectfully solicited. In the event there are any fee deficiencies or

QUARLES & BRADY LLP
One South Church Avenue
Tucson, Arizona 85701

TEL 520-770-8703
FAX 520-770-2233

-28-

QB\480973.00117\11432127.1

additional fees are payable, please charge them, or credit an overpayment, to our Deposit Account No. 170055.

Respectfully submitted,

/Dale F. Regelman/

Dale F. Regelman, Ph.D.
Attorney for Applicants
Reg. No. 45,625

CERTIFICATE OF ELECTRONIC FILING

I hereby certify that this correspondence is herewith being electronically transmitted via Electronic Filing System to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

| _____/Reena Mendez/_____ | _____October 4, 2010_____ |
| Signature | Date of Signature |

QUARLES & BRADY LLP
One South Church Avenue
Tucson, Arizona 85701

TEL 520-770-8703
FAX 520-770-2233

-29-

QB\480973.00117\11432127.1